Electronic Version
Stylesheet Version v1.1.1

Claims

[c1] An occupant restraint system for an automotive vehicle comprising:
a rollover sensor generating a rollover signal corresponding to a rolling movement of the vehicle;
a seat having a seat base and a seat back rotatably coupled to the seat base; and
a controller coupled to the rollover sensor and the seat base, said controller controlling the seat back to move relative to the seat back in response to the rollover signal.

[c2] A system as recited in claim 1 further comprising a motor coupled to the seat base, said controller controlling the motor to move the seat base relative to the seat back in response to the rollover signal.

[c3] A system as recited in claim 2 further comprising a power seat switch providing a first current to the seat back, said controller generating a second current higher than the first current to move the seat back relative to the seat base in response to the rollover signal.

[c4] A system as recited in claim 3 further comprising an in-

flatable shoulder belt, said controller deploying the inflatable shoulder belt in response to the rollover signal.

[c5] A system as recited in claim 1 wherein the rollover sensor is coupled to a rollover control module.

[c6] A system as recited in claim 1 wherein the controller comprises a rollover control module.

[c7] An occupant restraint system for an automotive vehicle comprising:
a rollover sensor generating a rollover signal corresponding to a rolling movement of the vehicle;
an inflatable shoulder belt having an airbag;
a seat having a seat base and a seat base rotatably coupled to the seat base; and
a controller coupled to the rollover sensor, said shoulder belt and the seat base, said controller controlling the seat back to move relative to the seat base in response to the rollover signal, said controller deploying the inflatable shoulder belt in response to the rollover signal.

[c8] A system as recited in claim 7 further comprising a motor coupled to the seat base, said controller controlling the motor to move the seat base relative to the seat back in response to the rollover signal.

[c9] A system as recited in claim 8 further comprising a

power seat switch providing a first current to the seat back, said controller generating a second current higher than the first current to move the seat back relative to the seat base in response to the rollover signal.

[c10] A system as recited in claim 7 wherein the rollover sensor is coupled to a rollover control module.

[c11] A system as recited in claim 7 wherein the controller comprises a rollover control module.

[c12] A method of restraining an occupant during a rollover event comprising:
generating a rollover signal in response to a rolling movement of the vehicle;
rotating the seat back relative to the seat base in response to the rollover signal; and
deploying an inflatable shoulder belt in response to the rollover signal.

[c13] A method as recited in claim 12 wherein rotating the seat back comprises rotating the seatback in a rearward direction.

[c14] A method as recited in claim 12 wherein rotating the seatback comprises controlling a motor coupled to the seat back.

[c15] A method as recited in claim 12 wherein rotating the seatback comprises controlling a current of a motor coupled to the seat back.

[c16] A method as recited in claim 12 further comprising rotating the seat upon activation of a switch with a first current and wherein rotating the seat back comprises rotating the seat back with a second current higher than the first current.

[c17] A method as recited in claim 12 wherein generating a rollover signal comprises generating a rollover signal at a rollover control module that is coupled to a rollover sensor.

[c18] A method as recited in claim 12 wherein deploying an inflatable shoulder belt is performed simultaneously with rotating.

[c19] A method as recited in claim 12 wherein deploying an inflatable shoulder belt comprises urging the occupant against the seat back.